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NEWS 2	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
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NEWS 4	Oct 09	Number of Derwent World Patents Index updates increased
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NEWS 11	Nov 29	COPPERLIT now available on STN
NEWS 12	Nov 29	DWPI revisions to NTIS and US Provisional Numbers
NEWS 13	Nov 30	Files VETU and VETB to have open access
NEWS 14	Dec 10	WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
NEWS 15	Dec 10	DGENE BLAST Homology Search
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NEWS 18	Dec 17	New fields for DPCI
NEWS 19	Dec 19	CAS Roles modified
NEWS 20	Dec 19	1907-1946 data and page images added to CA and CAplus
NEWS 21	Jan 25	BLAST(R) searching in REGISTRY available in STN on the Web
NEWS 22	Jan 25	Searching with the P indicator for Preparations
NEWS 23	Jan 29	FSTA has been reloaded and moves to weekly updates
NEWS 24	Feb 01	DKILIT now produced by FIZ Karlsruhe and has a new update frequency
NEWS 25	Feb 19	Access via Tymnet and SprintNet Eliminated Effective 3/31/02
NEWS 26	Mar 08	Gene Names now available in BIOSIS

NEWS EXPRESS	February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
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FILE 'MEDLINE' ENTERED AT 17:48:34 ON 12 MAR 2002

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=> s ?inhibin
L1 15903 ?INHIBIN

=> s prostate or prostatic
L2 280684 PROSTATE OR PROSTATIC

=> s l1 and l2
L3 753 L1 AND L2

=> s l3 and py<=1997
2 FILES SEARCHED...
3 FILES SEARCHED...
L4 561 L3 AND PY<=1997

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5 294 DUP REM L4 (267 DUPLICATES REMOVED)

=> s l5 and alpha
L6 28 L5 AND ALPHA

=> s l5 and (cancer? or metast? or tumor? or carcinoma)
2 FILES SEARCHED...
L7 145 L5 AND (CANCER? OR METAST? OR TUMOR? OR CARCINOMA)

=> s l7 and alpha
L8 10 L7 AND ALPHA

=> d ibib abs 1-10

L8 ANSWER 1 OF 10 MEDLINE
ACCESSION NUMBER: 1998022037 MEDLINE

DOCUMENT NUMBER: 98022037 PubMed ID: 9379131
TITLE: Growth inhibitory response to activin A and B by human **prostate** tumour cell lines, LNCaP and DU145.
AUTHOR: McPherson S J; Thomas T Z; Wang H; Gurusinghe C J; Risbridger G P
CORPORATE SOURCE: Institute of Reproduction and Development, Monash Medical Centre, Melbourne, Victoria, Australia.
SOURCE: JOURNAL OF ENDOCRINOLOGY, **(1997 Sep)** 154 (3) 535-45.
Journal code: I1J; 0375363. ISSN: 0022-0795.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199711
ENTRY DATE: Entered STN: 19971224
Last Updated on STN: 19971224
Entered Medline: 19971110

AB Activins are growth and differentiation factors which have been shown to have proliferative and antiproliferative actions in many tissues. In addition, they have been implicated in tumourigenesis in reproductive tissues. Although activin and **inhibin** are present in rat ventral **prostate**, **inhibin** beta, but not **alpha**, subunit proteins have been detected in the human **prostate** epithelial tumour cell lines LNCaP, DU145 and PC3. With this absence of capacity to produce inhibins, the aims of this study were to determine the effect of activin A and B and follistatin on DNA synthesis by these human **prostate** tumour cell lines. The results demonstrate a differential response to exogenously added activin A and B on DNA synthesis in vitro by the tumour cell lines. The inhibitory effects were observed on LNCaP cells in the absence or presence of stimulation with 1 nM 5 **alpha** -dihydrotestosterone and on the androgen-independent DU145 cells, but not the PC3 cells. Activin A caused a dose-dependent inhibition of DNA synthesis and proliferation by LNCaP and androgen-independent DU145 cells which was maximal at 8 ng/ml. The effect of exogenously added activin A was completely reversed by follistatin, but not by **inhibin** A. The addition of human recombinant FS 288 alone (400 ng/ml) did not have any effect on DNA synthesis, whereas **inhibin** A alone (400 ng/ml) caused a significant inhibition of DNA synthesis. The capacity of all three cell lines to produce activins and follistatins was demonstrated by the expression of the mRNAs and confirmed by the localisation of immunoreactivity for these ligands to the cytoplasm of the tumour cells. The growth inhibitory response to activins A and B by LNCaP and DU145 cells, and the ability of follistatin to block these effects, suggest that the autocrine interactions between activins and follistatins have a role in the regulation of LNCaP and DU145 **prostate** tumour cell growth.

L8 ANSWER 2 OF 10 MEDLINE
ACCESSION NUMBER: 97183726 MEDLINE
DOCUMENT NUMBER: 97183726 PubMed ID: 9031686
TITLE: Expression and localization of **inhibin**/activin subunits and activin receptors in the normal rat **prostate**.
AUTHOR: Ying S Y; Zhang Z; Huang G
CORPORATE SOURCE: Department of Cell and Neurobiology, University of Southern

California School of Medicine, Los Angeles 90033, USA.
CONTRACT NUMBER: DK-47609 (NIDDK)
SOURCE: LIFE SCIENCES, **(1997)** 60 (6) 397-401.
Journal code: L62; 0375521. ISSN: 0024-3205.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199703
ENTRY DATE: Entered STN: 19970313
Last Updated on STN: 19970313
Entered Medline: 19970305

AB Activin, a member of transforming growth factor beta (TGF beta), plays an important role during embryonic development, and defects of this growth factor results in degenerative disorders as demonstrated by gene knock out studies. TGF beta has been shown to have dual effects on the regulation of growth of **prostate cancer** cells. Recently, we have reported that activin was localized and messenger RNAs encoding activin and its receptors were expressed in human **prostate cancer** cells. To determine whether normal **prostate** cells produce **inhibin** and/or activin, immunohistochemistry was conducted on rat **prostate** glands using specific antibodies for **inhibin** and activin. The **inhibin** and activin were present in the cytoplasm and nuclei of epithelial cells whereas stromal cells were not stained. The expression of mRNA for the **inhibin** /activin subunits was determined using both in situ hybridization and the reverse transcription-polymerase chain reaction (RT-PCR) technique. In addition, the identity of the cDNA product of RT-PCR was verified with DNA sequencing. These findings suggest that **inhibin** is only produced and mRNA encoding the **alpha**-subunit for **inhibin** is only expressed in the normal rat **prostate** but activin and its receptors are produced and expressed in both normal rat **prostate** as well as human **prostate cancer** cells.

L8 ANSWER 3 OF 10 MEDLINE
ACCESSION NUMBER: 92094736 MEDLINE
DOCUMENT NUMBER: 92094736 PubMed ID: 1755126
TITLE: [Immunochemical tests in the diagnosis of diseases of the male reproductive system].
Immunokhimicheskie testy v diagnostike zabolevanii muzhskoi reproduktivnoi sistemy.
AUTHOR: Nikolaev A A; Anshakova N I; Mel'man V M
SOURCE: UROLOGIIA I NEFROLOGIIA, **(1991 Sep-Oct)** (5) 56-9.
Journal code: WRS; 0032352. ISSN: 0042-1154.
PUB. COUNTRY: USSR
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199201
ENTRY DATE: Entered STN: 19920216
Last Updated on STN: 19920216
Entered Medline: 19920124

AB Immunochemical tests were employed to measure proteins (acid phosphatase, **prostatic** beta-globulin, endometrial **alpha**-2-globulin, lactoferrin, carcinoembryonal antigen) in spermatic plasma and **prostatic** fluid from healthy subjects and patients with

prostatic adenoma, **cancer**, chronic inflammation, defects of spermatogenesis. It was found that the overall concentration of acid phosphatase and **prostatic** beta-globulin may serve a diagnostic criteria to differentiate **prostatic** adenoma from **cancer** as in 93% of **prostatic cancer** this parameter did not exceed 400 micrograms/ml whereas in 75% of adenomas it was above 1200 micrograms/ml. Activity of chronic prostatitis can be assessed from lactoferrin test. The level of the organ-specific antigens (acid phosphatase and **prostatic** beta-globulin) and lactoferrin correlated with the severity of spermatogenesis disorders.

L8 ANSWER 4 OF 10 MEDLINE
ACCESSION NUMBER: 91303895 MEDLINE
DOCUMENT NUMBER: 91303895 PubMed ID: 1712873
TITLE: Clinical evaluation of serum basic fetoprotein for **prostatic cancer**--comparative study with PAP, gamma-Sm and PSA.
AUTHOR: Gotoh A; Mizuno Y; Takenaka A; Gohji K; Ogawa T; Arakawa S;
Kamidono S; Harada K; Nagata H; Hirooka K; +
CORPORATE SOURCE: Department of Urology, Kobe University School of Medicine.
SOURCE: NIPPON HINYOKIKA GAKKAI ZASSHI. JAPANESE JOURNAL OF UROLOGY, **(1991 Mar)** 82 (3) 467-72.
Journal code: KRB; 2984841R. ISSN: 0021-5287.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199108
ENTRY DATE: Entered STN: 19910908
Last Updated on STN: 19960129
Entered Medline: 19910816

AB The clinical significance of serum basic fetoprotein (BFP) in **prostatic cancer** was investigated together with serum **prostatic** acid phosphatase (PAP), gamma-seminoprotein (gamma-Sm) and **prostate** specific antigen (PA). Investigated in this study were 40 patients with **prostatic cancer**, ranging in age from 50 to 85 years (mean age: 69.5 years). According to clinical staging, 3 cases (7.5%) had a stage A disease, 10 cases (25.0%) a stage B disease, 7 cases (17.5%) a stage C disease, and 20 cases (50.0%) a stage D disease.
The positive rates for serum BFP, PAP, gamma-Sm, and PSA were 60.0, 45.0, 63.6, and 68.4%, respectively, and these rates increased as the stage advanced. The above results suggest that BFP is the most useful marker of the four for monitoring **prostatic cancer**. In a combination assay of these four markers, 29 (87.9%) of 33 patients with **prostatic cancer** could be diagnosed by observing an elevated serum level in one of the markers. This suggests that a combination assay of BFP, PAP, gamma-Sm and PSA in patients with **prostatic cancer** is useful for diagnosis and monitoring of the disease.

L8 ANSWER 5 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1995:395390 BIOSIS
DOCUMENT NUMBER: PREV199598409690
TITLE: Expression of activin and activin receptors in human **prostatic carcinoma** cell line DU145.
AUTHOR(S): Furst, Benjamin A.; Zhang, Zhong; Ying, Shao-Yao (1)

CORPORATE SOURCE: (1) Dep. Cell Neurobiol., Univ. S.C. Med. Sch., 1333 San Pablo St., BMT 401, Los Angeles, CA 90033 USA
SOURCE: International Journal of Oncology, (1995) Vol. 7, No. 2, pp. 239-243.
ISSN: 1019-6439.
DOCUMENT TYPE: Article
LANGUAGE: English
AB The purpose of this study was to determine whether DU145, a human **prostate cancer** cell line: (a) transcribes mRNAs coding for beta-A- and beta-B-subunits of activin, a member of transforming growth factor beta (TGF-beta) superfamily, and activin receptors I, II, and IIB; and (b) produces activin proteins. The expression and localization of the mRNAs were elucidated by the reverse transcription-polymerase chain reaction (RT-PCR) and in situ hybridization techniques. The production of activin was determined by immunocytochemistry. We have observed that messenger RNAs encoding activin beta-A-, beta-B-subunits, and activin receptors I, II, and IIB, but not that of the **alpha**-subunit of **inhibin**, were expressed, and activin proteins, but not **inhibin**, were produced, by DU145 cells. Furthermore, the RT-PCR products were confirmed by DNA sequencing. It is concluded that activins and their receptors are expressed in DU145 and activins may have autocrine functions in DU145 cells.

L8 ANSWER 6 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1995:174570 BIOSIS
DOCUMENT NUMBER: PREV199598188870
TITLE: Expression of activin and activin receptors in PC3 human **prostatic cancer** cells.
AUTHOR(S): Ying, Shao-Yao (1); Zhang, Zhong; Xing, Wenxue
CORPORATE SOURCE: (1) Dep. Cell Neurobiol., Univ. S.C. Med. Sch., 1333 San Pablo St., BMT-401, Los Angeles, CA 90033 USA
SOURCE: International Journal of Oncology, (1995) Vol. 6, No. 3, pp. 601-606.
ISSN: 1019-6439.
DOCUMENT TYPE: Article
LANGUAGE: English
AB PC3 human **prostatic cancer** cells, which are androgen-independent and hormone-nonresponsive, were used to examine the possible presence and expression of activin and its receptors in this cell line because activin is a member of transforming growth factor beta (TGF-beta) superfamily which has been found to have growth-inhibitory activity. We have studied whether PC3 cells transcribe mRNAs coding for beta-A- and beta-B-subunits of activin. and activin receptors I, II, and IIB, and whether PC3 cells produce activin proteins. The expression and localization of the mRNAs were elucidated by the reverse transcription-polymerase chain reaction (RT-PCR) and in situ hybridization techniques. The presence of immunoreactivity for activin was determined by immunocytochemistry. We have observed that messenger RNAs encoding activin beta-A-, beta-B-subunits, and activin receptors I, II, and IIB, but not that of the **alpha**-subunit of **inhibin**, were expressed, and activin proteins, but not **inhibin**, are present in PC3 cells. Furthermore, the RT-PCR products were confirmed by DNA sequencing. We conclude that activins and their receptors are expressed in PC3 and suggest that activins may have autocrine functions in these cells.

L8 ANSWER 7 OF 10 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 96224126 EMBASE
DOCUMENT NUMBER: 1996224126
TITLE: [The development of a method for the quantification of mRNA
by RT-PCR in testicular biopsies].
DEVELOPPEMENT D'UNE METHODE DE QUANTIFICATION DES ARN MESSAGERS PAR RT-PCR DANS LES BIOPSIES TESTICULAIRES.
AUTHOR: Lejeune H.; Levy R.; Brebant C.; Crave J.C.; Berger-Dutrieux N.; Devonecy M.; Durand P.; Saez J.M.; Pugeat M.
CORPORATE SOURCE: Lab. de la Clinique Endocrinologique, Hopital Debrousse de l'Antiquaille,Lyon, France
SOURCE: Andrologie, (1996) 6/2 (214-223).
ISSN: 1166-2654 CODEN: AROLEO
COUNTRY: France
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 010 Obstetrics and Gynecology
029 Clinical Biochemistry
LANGUAGE: French
SUMMARY LANGUAGE: French; English

AB The physiopathology of abnormal spermatogenesis in infertile men remain largely unknown. To analyse gene expression in the testis, we developped a method of relative quantification of mRNA by reverse transcriptase polymerase chain reaction (RT-PCR), suitable for testicular biopsies. The methodological strategy was adapted to the constraints due to: - the small size of the tissue samples and - the modification of the cellular composition of the tissue by the pathological state itself i.e. reduction of germ cell number by the spermatogenic defect. Preliminary experiments were performed using testes obtained from one 23 years old subject in recent cerebral death (normal spermatogenesis on histological examination) and 3 patients with **prostate cancer** with the following histological findings: hypospermatogenesis with production of spermatozoa in less than 10% of the seminiferous tubule sections, seminiferous tubule atrophy with fibrohyalinose, or with hyalinose and Leydig cell hyperplasia. We measured mRNA levels of genes considered as markers of different cell types, Clusterin for Sertoli cells, cytochrome P450 side chain cleavage (CyP450scc) for Leydig cells and protamine-1 for germ cells, and **inhibin** a-subunit as paracrine/endocrine factor, relatively to the wide-spread used gene of reference .beta.-actin. The chosen methods were as follows: total RNA extraction, priming of the RT with oligo-dT, primer for PCR of similar composition (20-mer, 45-55% CG), located on different exons, coamplification of the cDNA of interest with the cDNA of reference in the same PCR tube, delayed beginning of amplification of the highest expressed gene to avoid a too high difference in the mRNA levels of the two coamplified cDNAs, revelation of PCR products by Southern blot and hybridization with 32P-CTP labelled probes, autoradiography and densitometry of the signals obtained during the exponential phase of the amplification. Such a procedure allowed to measure the mRNA of interest relatively to the mRNA of reference with 0.1 .mu.g of total RNA (instead of 10-40 .mu.g for Northern blot). The measurement by RT-PCR of **inhibin** a-subunit mRNAs in testicular RNAs mixed with known amounts of RNAs extracted from a human hepatoma cell line which did not express **inhibin .alpha.**-subunit

gene (HepG2), was in good correlation with the expected values (r = 0.989;
p = 0.0015), as well as with Northern blot values (r = 0.995; p = 0.0005).
The results of mRNA measurement by RT-PCR in the pathological testes, relatively to the normal testis, were in good correlation with Northern blot (r = 0.914; p = 0.0002), and results of RT-PCR performed from small biopsy tissue samples (1-5 mg) and from larger tissue samples (.apprx. 100
mg) were in good correlation (r = 0.931; p = 0.0003). Our results are consistent with histological findings: lack of protamine-1 expression in the cases of total spermatogenic failure and increased CyP450sec in Leydig
cell hyperplasia. The **inhibin** a-subunit mRNA levels were mainly dependant on the content of the samples in somatic cells of the testis. Our results underline that the use of specific markers of the different cell types is required to give a physiopathological significance to the measurement of the paracrine factor mRNAs in case of spermatogenic defects. These methods will allow to study the expression of genes involved in the local control of spermatogenesis in small testicular biopsies.

L8 ANSWER 8 OF 10 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 95194737 EMBASE
DOCUMENT NUMBER: 1995194737
TITLE: Development and characterization of murine monoclonal antibodies to the latency-associated peptide of transforming growth factor .beta.1.
AUTHOR: Hongo J.-A.S.; Mora-Worms M.; Lucas C.; Fendly B.M.
CORPORATE SOURCE: Dept. of Bioanalytical Technology, Genentech, Inc., 460 Point San Bruno Boulevard,South San Francisco, CA 94080, United States
SOURCE: Hybridoma, (1995) 14/3 (253-260).
ISSN: 0272-457X CODEN: HYBRDY
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Transforming growth factor .beta. (TGF-.beta.) is a multifunctional peptide that controls proliferation, differentiation, and other functions in a variety of cell types. Transforming growth factor .beta. activities have been implicated in a variety of diseased states including arthritis, **prostate cancer**, and AIDS, and in the repair of tissue
injury caused by trauma, burns, and surgery. We describe the development and characterization of novel murine monoclonal antibodies (MAbs) to the latency-associated peptide (LAP) of TGF-.beta.1, and the subsequent development of an ELISA for the detection and quantitation of TGF-.beta.1-LAP in buffer and serum matrices. Fusion of immune splenocytes
with myeloma cells yielded 576 hybridomas, 110 of which were antibody secreting. Five were selected for extensive characterization. Clinically, the MAbs described here should be valuable for studying potentially abnormal production and/or function of the LAP, and its relationship to TGF-.beta..

L8 ANSWER 9 OF 10 SCISEARCH COPYRIGHT 2002 ISI (R)
ACCESSION NUMBER: 95:121127 SCISEARCH

THE GENUINE ARTICLE: QE784
TITLE: ACTIVIN AND **INHIBIN** HAVE OPPOSITE EFFECTS ON STEROID 5-**ALPHA**-REDUCTASE ACTIVITY IN GENITAL SKIN FIBROBLASTS
AUTHOR: ANTONIPILLAI I (Reprint); WAHE M; YAMAMOTO J; HORTON R
CORPORATE SOURCE: UNIV SO CALIF, MED CTR, DIV ENDOCRINOL, UNIT 1, 1200 N STATE ST, ROOM 18-632, LOS ANGELES, CA, 90033 (Reprint)
COUNTRY OF AUTHOR: USA
SOURCE: MOLECULAR AND CELLULAR ENDOCRINOLOGY, (**JAN 1995**) Vol. 107, No. 1, pp. 99-104.
ISSN: 0303-7207.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 39

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The transforming growth factor beta (TGF-beta) superfamily includes several closely related peptides including the activins and inhibins. Since we recently reported that TGF-beta 1 and beta 2 are potent inducers of steroid 5 **alpha**-reductase (5 **alpha** R), we have now studied the effects of these other peptides using primary cultures of human scrotal skin fibroblasts. Recombinant human activin A or, **inhibin** A were added to cultured cells (2 x 10(5) cells) for 2 days in a serum free media and 5 **alpha** R activity was measured by the %-conversion of tracer [H-3]-testosterone to dihydrotestosterone (DHT) over a 4-h period. Activin significantly stimulated 5 **alpha** R activity in a dose related manner (control 3.0 +/- 0.4%, activin (1.2 x 10(-9) M) 6 +/- 0.7%, P < 0.01, (2.4 x 10(-9) M) 8.5 +/- 0.6%, P < 0.001).

In Comparison, androgen (DHT 10(-7) M) induction of 5 **alpha** R was 4.7 +/- 0.2%, P < 0.05. Combined exposure of fibroblasts to activin (1.2 x 10(-9) M) and androgen (10(-7) M) did not result in additive or synergistic effect on 5 **alpha** R activity. In contrast, exposure of cells to an androgen (10(-7) M) and TGF-beta (2 x 10(-10) M) led to synergistic effects on 5 **alpha** R activity (control 1.5 +/- 0.1%, DHT 2.6 +/- 0.2% TGF-beta 1 4.8 +/- 0.5, TGF-beta 1+DHT 9.2 +/- 1.2%). Finasteride, a 4-aza steroid inhibitor of 5 **alpha** R (10(-8) M) inhibited both activin and TGF-beta-induced 5 **alpha** R activity suggesting that the type II isoenzyme is induced by these peptides. Activin mediated 5 **alpha** R activity was abolished by the addition of cycloheximide, consistent with the proposition that enzyme induction requires new protein synthesis. Recombinant human **inhibin** alone did not alter basal 5 **alpha** R activity but dose dependently inhibited DHT (10(-7) M)-induced 5 **alpha** R activity (control 4.1 +/- 0.4%, DHT 7.5 +/- 0.7%, DHT + **inhibin** (0.6 x 10(-9) M) 5.7 +/- 0.5%, P < 0.05 DHT + **inhibin** (1.2 x 10(-9) M] 4.3 +/- 0.2%, P < 0.001). The effects of activin or **inhibin** were not associated with changes in cell number or thymidine uptake. These studies indicate that activin is 100 times more potent on a molar basis than androgen in induction of 5 **alpha** R activity. Although both activin and TGF-beta 1 induce 5 **alpha** R activity, the actions of the two peptides differ in the presence of an androgen. In contrast, **inhibin** significantly inhibits androgen induction of 5 **alpha** R. Activin and **inhibin**, two closely related molecules, potentially play opposite roles in DHT formation in sexual tissue.

L8 ANSWER 10 OF 10 SCISEARCH COPYRIGHT 2002 ISI (R)
ACCESSION NUMBER: 93:560200 SCISEARCH
THE GENUINE ARTICLE: LW687

TITLE: NEUROENDOCRINE MARKER SUBSTANCES IN HUMAN LEYDIG-CELLS - CHANGES BY DISTURBANCES OF TESTICULAR FUNCTION

AUTHOR: MIDDENDORFF R (Reprint); DAVIDOFF M; HOLSTEIN A F
CORPORATE SOURCE: UNIV HAMBURG, INST ANAT, MARTINISTR 52, D-20246 HAMBURG, GERMANY (Reprint)
COUNTRY OF AUTHOR: GERMANY

SOURCE: ANDROLOGIA, (**SEP/OCT 1993**) Vol. 25, No. 5, pp. 257-262.
ISSN: 0303-4569.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 22

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A number of neuroendocrine and neuronal markers were demonstrated in Leydig cells of the testes of 18 men aged between 20 and 81 years. Tissue sections were divided into five groups, i.e. **carcinoma** of the **prostate** (control cases; n = 4), seminoma (n = 8), anti-androgen therapy (n = 3), oestradiol therapy (n = 2) and cryptorchidism (n = 1). The following substances were immunocytochemically tested: the monoamine synthesizing enzymes tyrosine hydroxylase, aromatic L-amino acid decarboxylase, dopamine-beta-hydroxylase and phenylethanolamine-N-methyltransferase, the indolamine serotonin, the calcium-binding proteins parvalbumin, calbindin and S-100 protein, the microtubule associated protein-2, as well as neurofilament protein 200, synaptophysin, neuron specific enolase, substance P and chromogranin A+B. All these substances were found in Leydig cells of all sections independently of the pathological changes of the testes. Compared with the control cases, all the other groups showed a significantly weaker immunoreactivity for all markers. The uniformity of staining among the different antibodies allows the deduction that these neuroactive peptides may belong to a basic equipment of Leydig cells probably stabilizing their function in an autocrine manner. On the other hand, Leydig cells themselves seem to be a stable structural component of the testis, which are not essentially involved in the pathogenesis of the disturbances mentioned above.